

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-265297

(43)Date of publication of application : 06.10.1998

(51)Int.Cl.

C30B 29/38  
C30B 23/00  
H01L 21/203  
H01L 21/205  
H01L 33/00  
H01S 3/18

(21)Application number : 09-074002

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(22)Date of filing : 26.03.1997

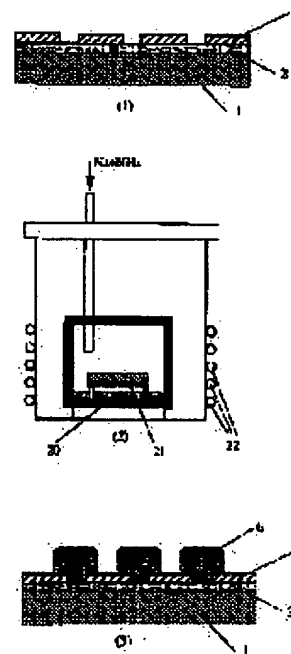
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## (54) PRODUCTION OF GALLIUM NITRIDE BULK SINGLE CRYSTAL

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a process for producing a GaN single crystal which simultaneously includes the controllability and crystallinity of a good growth position and the uniformity of sizes and shaped which are adequate as a substrate for mass production of GaN based semiconductor light emitting elements exhibiting blue emitted light with high efficiency.

**SOLUTION:** After an SiO<sub>2</sub> film 3 or SiN<sub>x</sub> film is formed on the substrate 1, the SiO<sub>2</sub> film 3 or SiN<sub>x</sub> film at the positions desired to be formed with the GaN bulk single crystals 6 is removed and a metal gallium or its compd. is sublimated and recrystallized at a high temp. in an ammonia atmosphere on this substrate, by which the GaN bulk single crystals 6 are selectively grown only on the desired positions on the substrate 21.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision]

of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

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